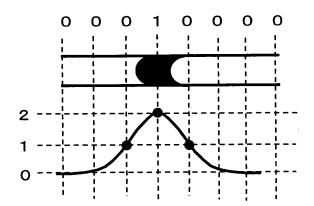


DATA BIT PATTERN

RECORDED MARK

REPRODUCED SIGNAL AND SAMPLE LEVEL



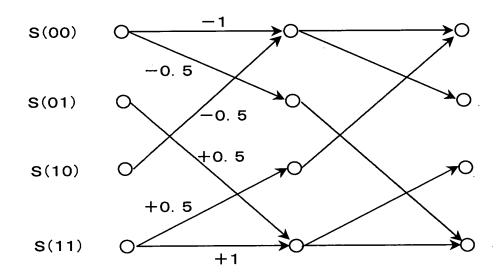


FIG. 4

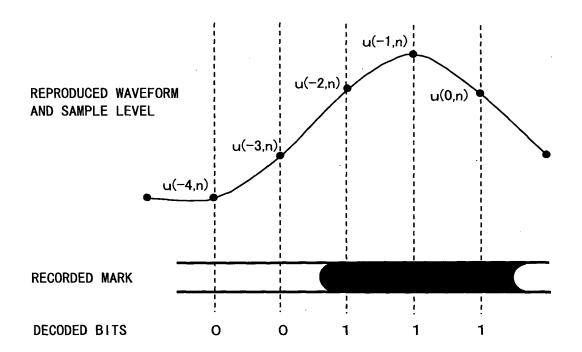


FIG. 5(a)

HISTOGRAM OF PATH METRIC DIFFERENCE FROM IDEAL WAVEFORM

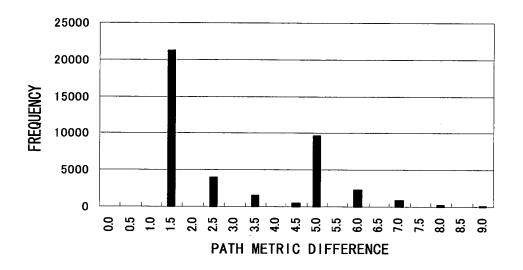
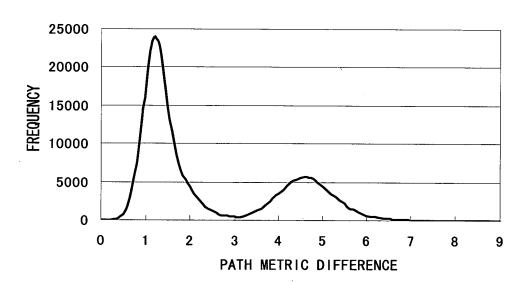


FIG. 5(b)

HISTOGRAM OF PATH METRIC DIFFERENCE FROM ACTUAL WAVEFORM



| IDEAL | BIT | r P | AT | ΓER | N | - | | | | | | | | | |
|-------------|-----|---------------|---------------|-----|---|---------------|---------------|--------|-------|---------------|---------------|---------------|-------------|-------|---|
| PATH METRIC | | | | | | | | | | | | | | | |
| DIFFERENCE | | | | | | | | | | | | | | | |
| 1.5 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | |
| | 1 | 1 | 0 | 0 | 0 | •••••• | •••••••• | •••••• | ••••• | ••••• | ••••• | •••••• | ••••• | ••••• | *************************************** |
| | 0 | 0 | 0 | 1 | 1 | •••••• | •••••• | ••••• | ••••• | ••••• | ••••• | •••••• | •••••• | ••••• | *************************************** |
| | 1 | 1 | 1 | 0 | 0 | | | | | | | ••••• | | | *************************************** |
| 2. 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | |
| 3. 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | |
| 4. 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | |
| 5. 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | ••••• | | |
| | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | |
| | 1 | 1 | 0 | 0 | 0 | 0 | | | | | | | | | |
| | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | |
| | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | |
| 6. 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | | ••••• | | | | |
| | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | | | |
| 7. 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | ••••• | | ••••• | | |
| 0.0 | 1 | 1 | 1 | 0 | 0 | 1 | $\frac{1}{2}$ | 1 | 1 | 1_ | | . 1 | | | |
| 8.0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | ******* | 1 | ••••• | | |
| | 1 | $\frac{1}{2}$ | $\frac{1}{1}$ | 0 | 0 | $\frac{1}{2}$ | 1 | 0 | 0 | $\frac{0}{0}$ | $\frac{0}{1}$ | $\frac{0}{1}$ | 1 | 1 | 1 |
| 9. 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | 1 | <u>l</u> | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| L | 1 | | _1_ | 0 | 0 | _1_ | 1 | 0 | 0 | 1 | _T | 1_ | 1 | _1_ | |

F1G. 7

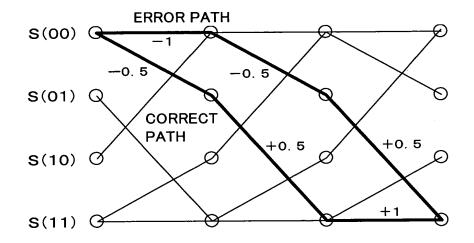
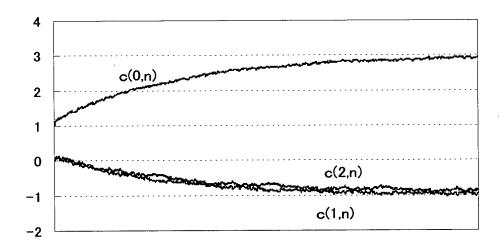


FIG. 8



F1G. 9

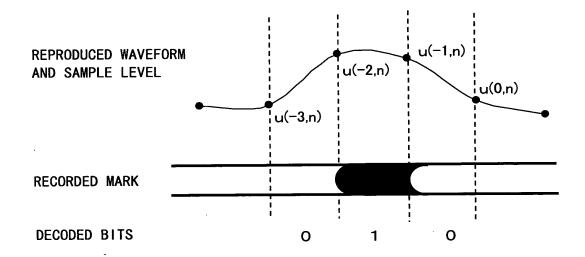
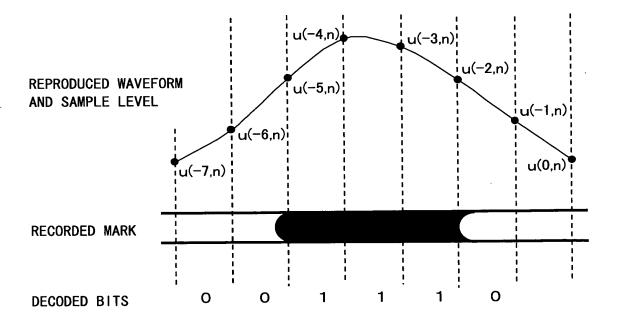


FIG. 10



L 21

TARGET VALUE

REGISTER

10

VALUE TARGET

qs

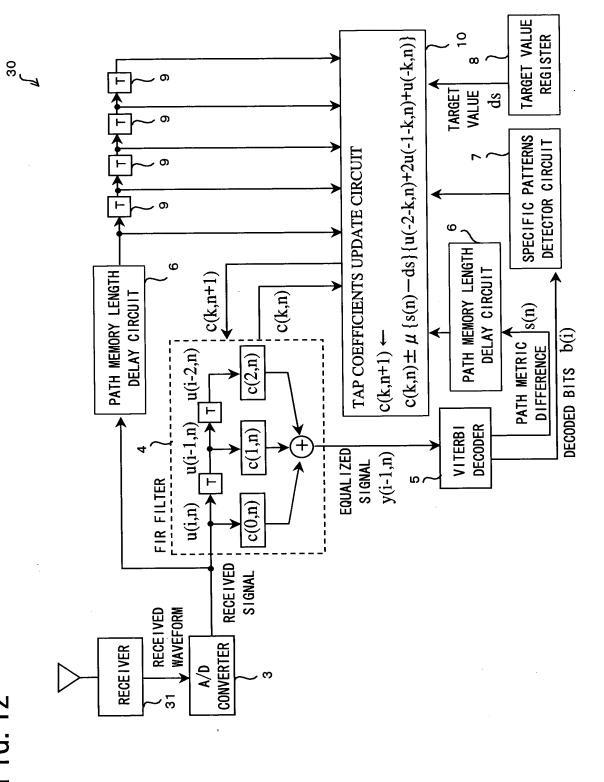


FIG. 13 PRIOR ART

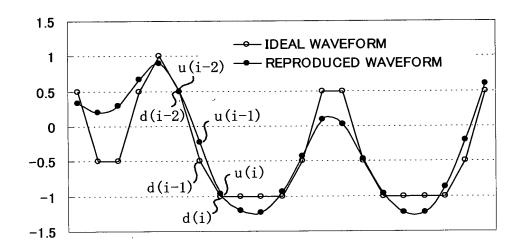
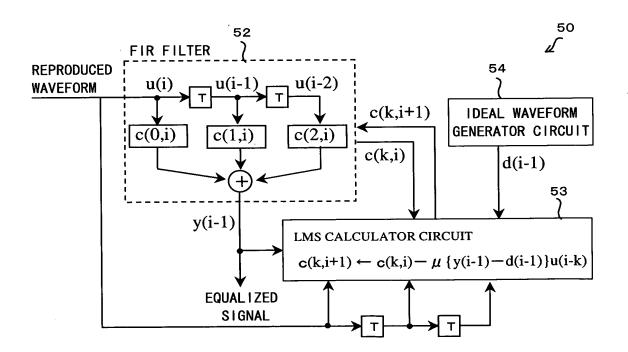


FIG. 14 PRIOR ART



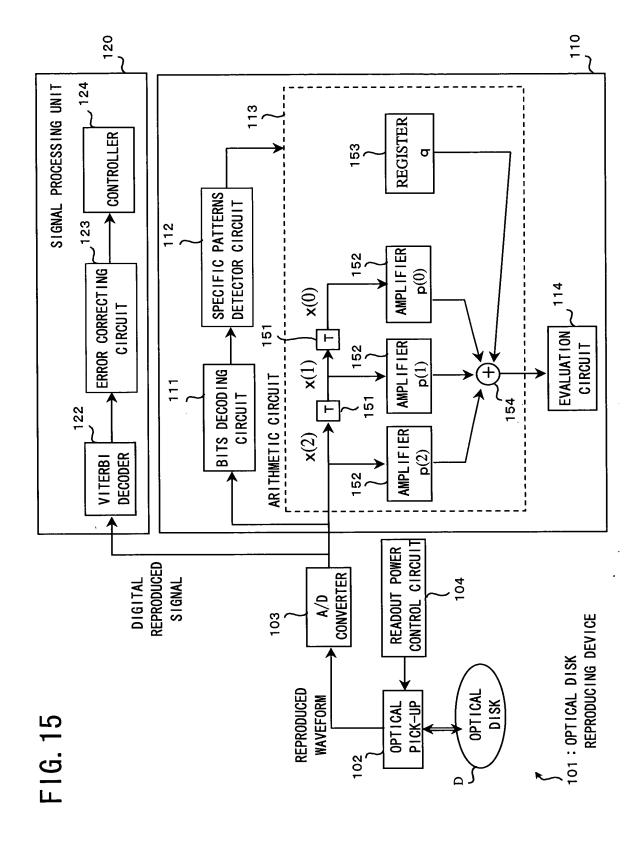


FIG. 16

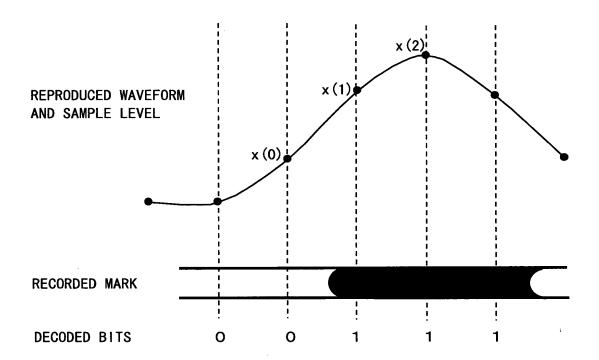


FIG. 17

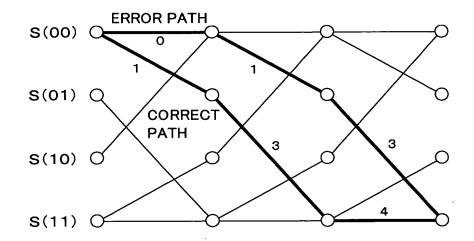
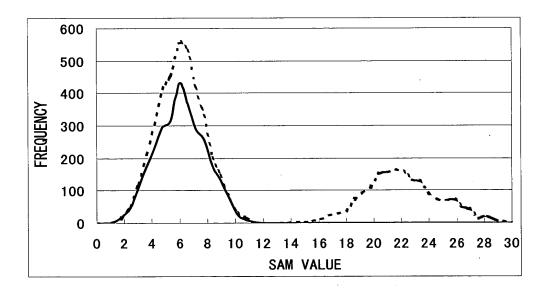
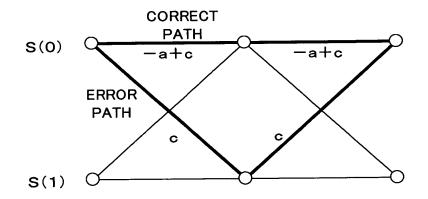
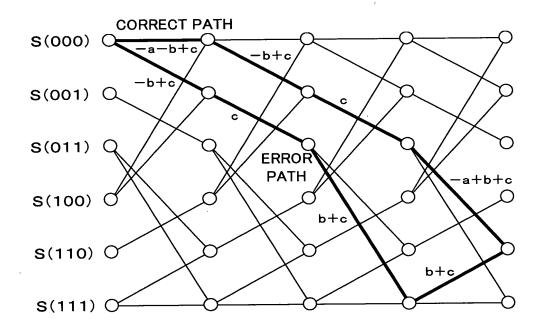
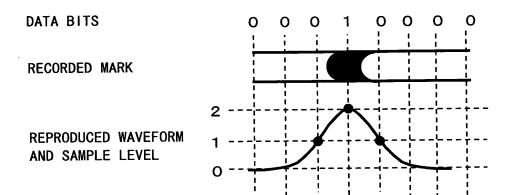


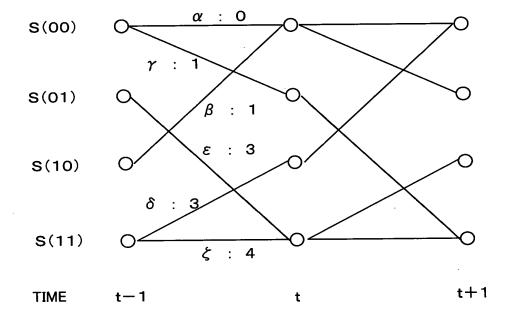
FIG. 18











HISTOGRAM OF PATH METRIC DIFFERENCE FROM ACTUAL WAVEFORM

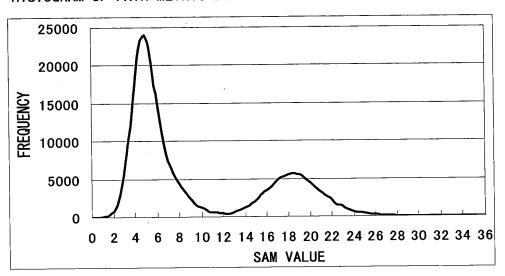


FIG. 24
HISTOGRAM OF PATH METRIC DIFFERENCE FROM IDEAL WAVEFORM

